ninges is very apt to arise in the course of the attack, by which the aural symptoms are still more completely masked. The cases we have seen and whose true character was tested after death, have almost invariably occurred in subjects having a decidedly scrofulous taint. This was the case, even, when the disease of the ear made its appearance in the course of, or as a sequel to an attack of scarlatina.

The few general remarks made by Dr. Von T., on the subject of otorrhœa, considered in reference to its remote effects—particularly its influence upon the circulatory system, in favouring the formation of emboli, more especially in the encephalic vessels and sinuses—of phlebitis, of abscess of the brain, of purulent meningitis, etc., are worthy of all attention; they are particularly suggestive in a pathological and practical, as well as diagnostic point of view.

The chapters on nervous deafness and tinnitus aurium, though they present nothing very positive as to the pathology or treatment of these troublesome and annoying ailments, nevertheless furnish as good an account of them as could be expected in the present state of our knowledge, which is confessedly very imperfect as to their nature, their causes, or the means adapted for their removal.

In respect to the various noises in the ear included under the head of tinnitus aurium, from the most transitory to the most enduring, it is more than probable that they are always symptomatic of diseased conditions of the auditory nerve, when they are not the result of actual sounds from vibrations produced within the body itself, as from the pulsations of the carotid or other arteries, suddenly increased action of heart, etc. Tinnitus aurium will be found to be a symptom attendant upon almost all the abnormal irritated conditions of the brain, whether originating in the brain itself, or reflected from some other part. It is always present in acute inflammation of the membrana tympani and of the cavity of the tympanum, and is coincident with all causes which increase the pressure of the fluid of the labyrinth. Thickenings and rigidity connected with increased tension of the membranes of the fenestræ, chronic hyperæmia of the ear will, also, cause most oppressive noises of the ear and head. In proportion, therefore, as we become better acquainted with the various abnormal conditions of the ear, their nature, causes, and location, will our means for the removal of tinnitus aurium become more effective.

The therapeutical directions given by Dr. Von T. in the several diseases of the ear are marked throughout by good sense, and based upon rational and generally accepted principles, and are equally removed from that miserable expediency which leaves everything to "nature's efforts," or that rash interference which too often increases the mischief it is intended to remedy. D. F. C.

ART. XXIX.—*Outlines of Surgical Diagnosis.* By GEORGE H. B. MACLEOD, M.D., F.R.C.S.E., Fel. Fac. Phys. and Surg. Glasgow; Lecturer on Surgery, Anderson's University; Surgeon to the Glasgow Royal Infirmary, and the Lock Hospital; Late Senior Surgeon Civil Hospital Smyrna, and General Hospital in Camp before Sebastopol; Mem. Corr. de la Soc. de Chir. de Paris; and Author of "Notes on the Surgery of the War in the Crimea." Reprinted from advance sheets. New York: Baillière Brothers, Broadway, 1864.

DR. MACLEOD is well and most favourably known to the profession of this country by his *Notes on the Surgery of the War of the Crimea.* Since the breaking out of our civil war this volume has been reprinted and largely circulated. It is distinguished by a clear statement of facts, a nice discrimination of the causes of excessive mortality during that eventful campaign, and a judicious consideration of the diseases and accidents incident to war.

In the volume before us the author has entered upon an entirely new field of study, and we were prepared to find him much less successful. The same hand that sketched the surgical history of a military campaign with so much vigour and truth as to gain universal applause, might well fail when attempting to establish the philosophical rules of an abstract science. But we are not disappointed. Dr. Macleod has proved himself fully equal to the task which he has undertaken, and has produced a work which will add to his former well-earned reputation. We do not wish to be understood as indulging in indiscriminate praise, for this volume is by no means above criticism; but when we consider the difficult nature of the subject, we must conclude that he has achieved success. A treatise on diagnosis must of necessity consist simply of dry detail. It can have little more liveliness or elasticity than a dictionary. Its merits, therefore, do not consist in its entertaining qualities, but rather in its accuracy and conciseness. Accordingly we find that the author seldom indulges in a quotation or a reference to a writer, but steadily fixes the reader's attention upon the varying phenomena of disease as illustrated by signs and symptoms. This is a work, then, of mere reference, and as such should be examined.

In the arrangement of subjects the author has chosen the alphabetical form, for which he apologizes in a short preface. We can but consider this a mistake, although not serious, as the real value of the work is not thereby affected. The alphabetical order takes subjects out of their anatomical, physiological, and pathological connections, in which we naturally, and by habit, prefer to study them. Let any one compare the recent work of Da Costa with this of Macleod, and he will at once recognize the advantages of a natural over an artificial arrangement of subjects.

The work opens with an introduction of sixty pages, in which the author establishes the principles of diagnosis. He points out the methods of procedure, the instruments employed, and the value of the senses. The student cannot too carefully study this section, nor too faithfully adhere to its precepts. The following extract will show how discreetly the author advises the surgeon to approach his patient:—

"It may be here remarked, that in his interrogations and all his intercourse with the sick, the surgeon must be most kindly in his manner if he wishes to elicit the information he seeks. Patience and tact are often much required in dealing with the ignorant. 'To question fitly is the art of a master,' says Rousseau. The advice of Sydenham is worthy of constant remembrance, when he says, that the surgeon, in his dealings with the sick, should recollect 'that as he is himself not exempt from the common lot, and is liable and exposed to the same laws of mortality, the same miseries and pains, as are all the rest, so he may endeavour the more diligently, and with the more tender affection, as being himself a fellow-sufferer, to help them who are sick.' The ignorant are often so conscious of their ignorance, that they are at once confused if questioned sharply; while with all it is desirable to use plain, concise, and simple language, and try by kindness of look and manner to give confidence. We should interfere as little as possible with the patient in his narrative, so as that nothing be suggested to him at first. In putting questions, let them be as much as possible such as only demand a 'yes' or a 'no,' and we must be sure that the question be perfectly understood before the answer is noted."

The following caution is too often overlooked by surgeons:—

"In examining a part, we should never unnecessarily repeat any painful movement or test, after once satisfying ourselves of the point inquired into. The continued rubbing together of the fragments of a broken bone, or the repeated introduction of a probe, after the matter to be decided has been once clearly made out, is the refinement of cruelty.

"Again, in prosecuting our examination, we may have occasion to make the patient uncover the affected part and assume various attitudes and postures. All this demands, especially in the case of females, circumspection and delicacy. It is an axiom in British surgery, in examining a female, never to uncover any part of whose normal condition we have no reason to doubt."

In taking up a special inquiry the surgeon first turns his attention to the past history of the patient, which includes the family history; personal history; temperament; age; sex; occupation; habits; moral condition; residence. He then proceeds to study the present condition of the patient. And first, information obtained by sight, involves form; colour; dimensions; relationship; direction transparence; movements. The information obtained by touch, includes consistence; temperament; movement; specific gravity; dimensions; connections; and special characters. Information obtained by the ear, auscultation and percussion in surgery; then information obtained by smell; and information obtained by taste. Finally, he examines the circulatory, respiratory, nervous, digestive, and genito-urinary systems. Under each of these heads all the symptoms and varying conditions induced by disease are carefully described. The introduction closes with a description of the different instruments employed in the investigation of surgical disease—as those used for the mouth and throat, eye, ear, nose, vagina, rectum, urethra; probes, sounds, &c.; bougies and catheters; exploring and acupuncture needles; and, finally, chemical tests; and effects of remedies.

The subject matter of the volume opens with Abscesses and closes with Veins. In some instances the disease or accident is placed in the alphabetical list, while in others the name of the part is employed. For example, all forms of Fracture are arranged under this general head; but under the division Brain we find the surgical diseases and accidents affecting this organ. From a careful examination of the work we are satisfied that every form of surgical disease or accident is appropriately entered and analyzed.

To give the reader a correct idea of Dr. Macleod's treatment of his subjects, we make the following quotation from the articles Dislocation—Femur:—

"*Ilio-ischiatic. Dislocation Backwards and Upwards, or Backwards and Downwards.*—This is the most common dislocation of all. It occurs when the thigh is adducted strongly and rotated inwards; or when the limb, being in a position of adduction, receives a diffused blow on its back surface; or the patient falls while carrying a load on his back.

"A. *Deformity.*—The hip is deformed, being more than usually prominent. The fold of the hip is higher, and removed further back than usual. The head of the bone, which looks backwards, may be felt on the dorsum of the ilium, and obscurely (in fat subjects not at all) if it be in the foramen. It rotates with the shaft. The trochanter is approximated to the anterior superior spinous process, and is carried backwards. It is at a greater distance from the tuberosity of the ischium than in the normal condition. It lies close to the edge of the acetabulum, and is turned forwards. It is less prominent than usual.

"B. *Function.*—There is very little voluntary motion. Adduction and rotation inwards, and flexion, though painful, are possible; while abduction and rotation outwards, and complete extension, are impossible.

"C. *Length.*—The thigh is shortened in proportion to the distance which the head of the bone is removed from the acetabulum. The heel is raised, and the ball of the great toe rests on the inner ankle or instep of the sound limb.

"D. *Axis.*—(*a*) Long. Thigh lies in a direction from the acetabulum to the sound knee. (*b*) The thigh is flexed on the pelvis, and the leg on the thigh. The knee and foot are rotated inwards; and the knee is carried forwards, and lies in front of the other. Its external condyle looks obliquely forwards.

"E. *Relationship of Processes.*—The relationship of the trochanter to the anterior superior spinous process, and to the tuberosity of the ischium, is changed. It lies behind a line passing from the one to the other, when the limb is flexed so as to be at right angles to the pelvis, and slightly adducted, in place of being in a line with these two processes when the thigh is so placed.

"F. *Crepitation.*—When observed, is of a coarse rubbing character.

"G. *Accessory Signs.*—The pain is not very severe, nor the swelling usually great. The circumference of the upper part of the thigh is increased, and there may be discoloration at the part where the force was applied.

"When the head of the bone has passed into the sacro-ischiatic foramen, all the signs noted above will be less marked (for obvious reasons) than when the head of the bone lies on any part of the back of the ilium. There will be less deformity of the hip, less shortening, less inversion and adduction, and less approximation of the trochanter to the anterior superior spinous process. The flexure of the thigh on the pelvis is, however, decided; and when the patient is lying flat on a hard bed it is very evident. If, when the patient is so placed, an attempt be made to straighten the limb, the loins will be arched, and *vice versâ.*

"Ilio-ischiatic dislocation can seldom be confounded with fracture of the head of the bone, as the eversion of the limb, in the vast majority of the cases of fracture, will—along with the ease of reduction, the crepitation, and possibly the age of the patient—distinguish them. But in those rarer cases of fracture in which there is rotation of the limb inwards, and especially if the trochanter major is at the same time broken and carried upwards and backwards, so as to resemble the head of the bone in dislocation, the diagnosis is not so easy. The distinction depends on the following points:—

"1. The limb being fixed in dislocation, and its mobility increased in fracture.

"2. The difficulty of reduction in dislocation, its ease in fracture.

"3. The continuance of the reduction when once achieved in dislocation, its almost immediate reproduction in fracture.

"4. The absence of crepitation in dislocation.

"5. Shortening being more decided in dislocation.

"6. Position of the head of the bone, and its rotating with the shaft in dislocation.

"7. Dislocation being usually an accident of middle life, and resulting from great violence, while fracture of the head of the femur is an accident of advanced life, and frequently results from slight violence.

"*From fracture of the acetabulum* this dislocation is to be distinguished, as occasionally there is a similar shortening and inversion of the limb in that accident. But such a fracture is a much more serious injury, and is followed by more violent general effects; crepitation is very marked, and the renewed displacement of the bone takes place with great ease."

Again, the points of difference between diseases or accidents are arranged as in the following "Differential Diagnosis between Intra- and Extra-capsular Fracture:"—

	INTRA-CAPSULAR FRACTURE.	EXTRA-CAPSULAR FRACTURE.
1. *Age.*	Rarely before 50.	All ages, but mostly between 30 and 50.
2. *Sex.*	In the female most.	Equally in both.
3. *Cause.*	Frequently slight, indirect violence. A trip or false step. (A fall on the trochanter very rarely the cause.)	Severe and direct violence. A blow on the trochanter, anterior part of the thigh, or a fall on the foot or knee.
4. *Deformity.*	Slight shortening at first (very rarely over an inch), but afterwards it may be considerable. This increase may occur suddenly. The prominence of the trochanter is diminished, and approached to the crest of the ilium.	If there be no impaction the amount of shortening is marked at first (may be as much as one and a half or two inches). It is more so than in fracture within the joint. The shortening changes little afterwards. The trochanter may be a little displaced upwards and backwards. Its prominence is not diminished unless there be impaction. If there is impaction, there may be no shortening.
5. *Unnatural Mobility.*	Marked in the socket of the joint.	If no impaction, this is marked, but not at so deep a point as in fracture within the socket. If there is impaction, this is not observed.
6. *Crepitation.*	Obscure, and only on drawing the limb to its normal length, and rotating it.	Little or no extension needed to develop it on rotation. Easily apparent if there is no impaction.

7. Loss of Function.	
Usually decided, but occasionally partially retained. The trochanter moves on a shorter axis than usual, but has still part of the neck of the bone as a radius.	Decided if there is no impaction. The bone turns on its own axis.
8. Pain, &c. &c.	
Slight, but deeply placed. Swelling and discoloration over the trochanter usually absent.	Superficial, and especially above and behind the trochanter, and usually severe on any movement or pressure. Swelling and discoloration over the trochanter usually marked.

In general the author has treated each subject with the thoroughness which the above examples indicate, leaving no points of inquiry unexamined. There are some diseases in which the elements of diagnosis are not so exhaustively reviewed as is desirable in a work of this kind; but these are errors of omission which can be supplied in subsequent editions.

In parting with Mr. Macleod's volume we do not hesitate to pronounce it a valuable addition to our surgical literature. We cordially recommend it to those who, in the practice of surgery, desire to have at hand a convenient manual, by the aid of which they may systematically review all the points in the diagnosis of obscure diseases, and properly estimate their relative importance.

S. S.

ART. XXX.—*Some Causes of Excessive Mortality after Surgical Operations.* By T. SPENCER WELLS, F. R. C. S., Surgeon to her Majesty's Household, &c. &c. From *British Med. Journal,* Oct. 1, 1864.

IN this highly interesting and instructive communication, which was read before the British Medical Association, at its late meeting in Cambridge, in August last, Mr. Wells discusses a subject of the deepest importance, and one which has prominently occupied the attention of the profession for the past few years. The difference in the mortality in different hospitals has been shown to be most marked, and the causes of this have given rise to many animated discussions during the last year in one of the prominent surgical societies of Paris, but without any satisfactory solution of the question having been reached. Indeed, some of the statements made have seemed to render an explanation more difficult. Thus it is asserted that at the Lariboisière, a hospital constructed especially to fulfil all the requirements of the advanced hygienic science of the day and in which the ventilation is claimed to be all that can be desired, the mortality is far greater than in some of the other Parisian hospitals, the hygienic conditions of which are deemed to be far less favourable.

Mr. Wells asserts that the mortality after surgical operations is excessive, and he maintains that it may, by attention to proper sanitary measures, be diminished; and he quotes a number of facts to show that the mortality of the sick who are treated in large general hospitals in large towns, is twice as great as the mortality of the sick who are treated in small hospitals in small towns. He adds, "that it remains to be seen, whether the mortality in small hospitals, is not twice as great as the mortality of the same diseases when they are treated in clean cottages."

The conclusion at which Mr. Wells arrives, "is that hospitals, without being so far removed from the centres of population as to be accessible with difficulty, should be surrounded by open spaces, and should not be too large for the number of patients. And, whatever may be the size of the building, the fewer the number of floors or stories in it, the less is the probability of excessive mortality."

But he truly adds, "Lessening the number of large hospitals, and increasing the number of small hospitals, and having the wards all on one story, would all be useless if there are too many beds in a ward. It is very possible that a large hospital, with large wards and beds widely apart, would be a far better place for